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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,372	08/05/2003	Chris A. Nelson	H550.12-0045	6923

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EXAMINER

MULLINS, BURTON S

ART UNIT PAPER NUMBER

2834

DATE MAILED: 06/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Applicati n N . 10/634,372	Applicant(s) NELSON, CHRIS A.	
	Examiner Burton S. Mullins	Art Unit 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-29 is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2 and 3 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 05 August 2003 has been considered by the examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Davis et al. (US 5,636,719). Organek teaches a rotational control apparatus comprising: a first assembly (piston 10' with friction disc 12', Fig.5) rotatably mounted to a first shaft (hub 24') of a first support mount; a second assembly (sheave 50') rotatably mounted to the first assembly, wherein the second assembly is axially moveable relative to the first assembly (by means of springs 56', c.10, lines 4-8), the first and second assemblies having respective coaxial surfaces 34/86 adjacent to and spaced from one another, the first and second assemblies further having respective axial surfaces 34/86 that frictionally engage one another when the second assembly is in a first axial position, and the respective axial surfaces of the first and second assemblies 34/86 disengage when the second assembly is in a second axial position (c.7, lines 4-14), wherein the second assembly is capable of rotation independent of the first assembly when the second assembly is in the second axial position; and an eddy current drive 224 (c.7, lines 15-

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18) comprised of a first eddy current coupling assembly (rings 238/242, c.7, lines 63-67) and a second eddy current coupling assembly (magnets 226), the first eddy current coupling assembly 238/242 associated with the coaxial surface of the first assembly 10'/12' and the second eddy current coupling assembly 226 associated with the coaxial surface of the second assembly 50' adjacent to and spaced from the first eddy current coupling assembly (Fig.5), wherein the second eddy current coupling assembly is adjacent the first eddy current coupling assembly with an air gap therebetween (c.10, lines 17-22).

Allowable Subject Matter

4. Claims 2-3 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art does not teach or suggest the claimed plurality of coaxially electrically insulated rings arranged in an inner cavity of the second assembly and a non-magnetic ring coaxially positioned adjacent to the electrically insulated rings (claim 2); or a pair of back iron tabs attached to the coaxial surface of the first assembly, the back iron tabs spaced circumferentially apart and opposed therefrom, and a pair of magnets secured to each back iron tab (claim 3).

5. Claims 4-9 are allowed. The prior art fails to teach or suggest the claimed rotational control apparatus including, inter alia, a second eddy current assembly comprising a laminated back iron radially arranged in the annular cavity and a non-magnetic band connected to the laminated back iron, the non-magnetic band positioned between the laminated back iron and the first eddy current assembly.

Claims 10-15 are allowed. The prior art fails to teach or suggest the claimed rotational control apparatus improvement including, inter alia, a second eddy current assembly radially arranged within an inner cavity of the third member, the second eddy current radially spaced from and coaxial to the first eddy current assembly by a gap wherein the inner radial surface portion defines an inner cavity of the third member.

Claims 16-19 are allowed. The prior art fails to teach or suggest the claimed rotational control apparatus including, inter alia, a second eddy current assembly with a plurality of electrically insulated rings radially arranged in the inner cavity of the second rotatable assembly adjacent the inner radial surface portion; and an intermediate ring of non-magnetic material connected to one the electrically insulated rings, the intermediate ring positioned between the plurality of electrically insulated rings and the first eddy current assembly.

Claims 20-26 are allowed. The prior art fails to teach or suggest the claimed cooling system including, inter alia, a second eddy current coupling assembly comprising a plurality of electrically insulated rings radially arranged adjacent the inner wall of the second assembly and an intermediate ring radially disposed between the electrically rings and the air gap.

Claims 27-29 are allowed. The prior art fails to teach or suggest the claimed rotational control apparatus including, inter alia, a second eddy current coupling assembly comprising a plurality of coaxial insulated rings arranged in the inner cavity of the second rotational assembly adjacent the inner wall and a non-magnetic ring coaxially positioned adjacent to the insulated rings (claims 27 & 29).

Conclusion

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6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Burton S. Mullins whose telephone number is 571-272-2029.

The examiner can normally be reached on Monday-Friday, 9 am to 5 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 571-272-2034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Burton S. Mullins
Primary Examiner
Art Unit 2834

bsm
29 May 2004